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#### **ABSTRACT**

Students are most likely to retain information presented in the classroom when it is made meaningful and personal to them. Strategies for immersing students in a subject can include, for example, holding an authentic style Roman feast for a Latin class, letting students hold their own "town meeting" and discuss current issues to learn about town meetings of past years, or writing on the computer to learn about word processing. Students will also become more enthusiastic about learning if they are offered a choice of what they can study. For instance, they can choose among 50 states to report on, or select their own topic to write about, or choose to be a particular townsperson in the American Revolution and report their feelings as that character. The use of stimulating textbooks and materials, rather than the "dumbed down" textbooks currently offered by the publishing industry will motivate students and foster better thinking. Such strategies will ensure that information "comes alive" in students' heads, and will make learning personally meaningful, self-generated, social, and stimulating. (JC)



Office of Educational Re

U S. DEPARTMENT OF EDUCATION

Betty Jane Wagner

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) "

# Points of view or opinions stated in this document do not necessarily represent official OERI position or policy THINKING HAPPENS IN THE HEAD

Association of American Publishers, Inc. Arlington,
Virginia

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I took time out from preparing this talk over this past weekend to see Woodie Allen's new movie, Radio Days, so don't be surprised if you hear a little Marzy Doats and Dozy Doats in the background as you listen to these words. That movie left me awash in nostalgia, not because my Baptist family in Fort Morgan, Colorado, would ever have recognized much in common with an extended Jewish family in Brooklyn, but because Woody Allen and I were united by the same glow of that world that transcended our cramped and powerless lives -- the world we heard about on the radio. Our Chicago film critic Roger Ebert said it best: "I can remember what happened to the Lone Ranger in 1949 better than I can remember what happened to me. His adventures struck deeply into my imagination in a way that my own did not, and as I write these words there is almost a physical intensity to my memories of listening to the radio. Television was never the same. Television shows happened in the TV set, but radio shows happened in my head". Even today when I awake in the middle of the night with the sense that a burglar is in the house, what my

<sup>1.</sup> Chicago Sun-Times, January 30, 1987

heart-pounding ears are straining to catch is the creak of that door -- the one that anyone who lay in the dark and listened to Inner Sanctum can hear right at this moment.

If we're going to consider thinking skills in the classroom, we have to remember that these happen in the head -- not in the classroom, not in the teacher's lectures, and, my dear representives of the publishing industry -- not even in the textbooks, and certainly not in those ancillary materials.

Teachers and textbook writers often wonder what happens in students' heads. What is going to com? back to them in their adult life when they remember their experiences in the classroom?

Test this out with your own memories. I'll give you three of my own to jog you along. I grew up in a little town that probably was the inspiration for James Michner's Centennial. Little did I realize that hearing Michner talk to our seventh-grade social studies class was a privilege. But then, in those days perhaps it wasn't; he wasn't famous yet. I scarcely remember him, but I do remember the teacher who asked him to speak -- Mr. Furdue. He has since gone on to be dean of the University of Denver and vice-chancellor of New York University. However, there is no one he could have influenced any more than our class of small-town hicks. It wasn't until I was an adult that I realized that the Harold Rugg textbook we were using was a

controversial hold-over from Progressive Education and the leftist ideologies of the '30's. All I knew then was that the textbook was thick, full of small print, and had a navy blue binding. The paper was that cheap World War II variety. I cannot tell you anything about what the text said.

So what do I remember? I remember the tests -- and how I loved "acing" them. All Mr. Purdue did was pass out elegant slick expensive paper -- the kind with wide blue lines and a red line below the top margin. We checked the ink in our fountain pens and went to work. He told us to write down everything we had learned since our last test. I don't remember whether we wrote about the mine workers in Appalachia or the rise of Hitler in Germany, but I do remember how proud I felt when he walked to my desk as we were all scratching away and took the pages I'd finished in my best handwriting and read down to where I was writing. He put a little red line in the margin to mark the spot where he stopped reading, smiled, said something encouraging, and went on to the next student. Why was this my favorite part of the class? Probably because this was the moment when I was, however imperfectly, making the material my own. I was forging a connection between that dense print in the text and my own experience. I was making meaning; the curriculum was happening in my head.

A secord vignette: Latin class. The same small town hicks,

but this time the teacher was a tiny woman on crutches: Miss Donnell. I remember dressing as Roman gods and goddesses and having our version of an orgy. I remember the menu calliographed in Latin onto a tiny scroll. At our banquet, we lay on couches trying to keep our dyed-sheet gowns from slipping off our shoulders and throwing grapes into our own and each other's mouths, trying to speak Latin, but frequently lapsing into pig latin or collapsing into laughter. It was in this class that I first sensed that religion may be plural, that our family's notion of God might not be the only one that could command belief. It's hard to recreate the dissonance this idea had at the time; I do remember talking with my friend Gerry, as we rehearsed in our diaphanous costumes, our sacred dance about whether we would have agreed to be Vestal Virgins if we had been told it was our sacred duty. In other words, Rome happened in my mind, and when I let Latin in, I was permanently set on the road toward a recognition that human experience is plural. It was years before I understood the Benjamin Whorf theory that language shapes our world, but learning new verbal designations for objects I knew -- words that had significantly different connotations from their English counterparts -- was part of the process that led to that understanding -- to making meaning.

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A final vignette: Miss Work, our American Problems teacher. It may seem a long way from Inner Sanctum to the Town Meeting of the Air, but Miss Work was the link between the two. By

reputation she was a person to be reckoned with -- a genuine battle axe. I still remember the awe I felt when this stern lady had the class over for a pot-luck picnic. There lining her home were more books than I had ever before seen outside the library: bookcases and bookcases full of National Geographic, Public Affairs pamphlets, and transcripts of the Town Meeting of the Air. We could borrow any of them to prepare our presentations for our classroom debates. My most vivid memory or our class forums is of Jim Boies as town cryer, ringing the iron teacher's bell and chanting, "Town Meeting Tonight, Town Meeting Tonight", just like they did on the radio. In our minds we became adults airing our views on important issues of the day -- the Hiss-Chambers debate, World Federalism, heifers for relief, UNESCO, the iron curtain. It's easy to romanticize that Miss Work had the luxury of teaching us in a time less fraught with ideological repressions than our own, but I suspect that in that time in that town what she did was not done without some risk. She would not have called herself a "secular humanist," staunch Presbyterian that she was, but she did have courage. Ours was a community with German bund groups, a colony outside of town for the Mexican migrant beet workers, a Japanese internment camp not far away, and a high density of small-town Protestant churches.

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Three memories -- all of them of experiences that catapulted me into higher level thinking. What do these three experiences have in common? I see four critical elements that characterize

them: the making of personal meaning, real student choice, social learning, and stimulating material.

## Personal Meaning

First, all three involve using language to forge personal meaning. Unless students can talk and write about what they are struggling to make sense of, they miss the single experience most likely to make a lasting difference in their understanding. Scholars in disciplines as diverse as literary criticism and physics are suggesting that there may be no such thing as impersonal, objective knowledge, based on disinterested observation and the operations of formal inference. In other words, personal knowledge may be the only kind there is. In our century people are seriously rethinking knowing. As Sam Watson puts it: "Sometime centuries hence, when people have chipped away the tomfooleries that grow like barnacles on any intellectual change, they will say that the twentieth century significantly reshaped the noetic landscape and the very notion of what it means to know something"<sup>2</sup>

To get thinking to happen in classrooms, we have to help

<sup>2. &</sup>quot;Polanyi and the Contexts of Composing" in Aviva Freedman and Ian Pringle, (Eds.). Reinventing the Rhetorical Tradition (Ottawa, Ontario: Canadian Council of Teachers of English, 1980).

students make knowledge their own. One of the tragedies of the past decade and a half of curriculum development in this country is that we have invested heavily in a belief in objective knowledge. We have organized our curriculum in logically sound, but not always psychologically valid ways. Whenever we break things down into their components -- no matter how logical -- we inhibit the very process we want to enhance -- namely, making meaning. We only car make meaning if we try to makes sense of wholes.

I have just finished teaching a graduate course in Word Processing for Teachers of Writing. Most of the adult students were new to the computer. The one who had the most difficulty was the one who went home and tried to memorize the Appleworks software commands so she wouldn't have to use her cue card. She had no context for these commands; they did not have a larger system to give them meaning. They were just little isolated bits of knowledge, the hardest kind of information to master. The student who learned the most quickly was the one who simply sat down and started writing a piece he wanted to submit for publication. Students invariably learn faster when they have a real goal — one they have set for themselves. Then they examine software programs such as word processors, prewriting tutorials, or spelling and editing programs and very efficiently master commands in order to accomplish something personally meaningful.

The human brain differs most markedly from the computer in the way it accesses the material within it The computer scans in an algorhythmic procedure for an exact fit; the human brain, by contrast, is not a simple input-output device. It comprehends and categorizes, organizes and retrieves information based on values and goals. It is marvelously efficient. As Frank Smith reminds us, the human brain does not need an exact match for its template. Instead, it establishes criteria or specifications and looks for patterns that meet them. There can be lots of gaps in the specifications, but they provide the guidelines for recognizing patterns and selecting among alternatives<sup>3</sup>. brain is a master at pattern recognition. For example, when we go to a class high school or college class reunion and see our old friends, our brain is at work rapidly going through its memory of all the young faces that no longer exist in the real world to find the one which most nearly matches this lined one in The brain quickly sloughs off the balding head, the overweight body, and the double chin and reaches down in its reservoir of remembered patterns to come up with the name that is most likely to fit the visage in front of the eyes. After a few minutes with the just-acquired older version of the friend, this new image becomes so fixed it is difficult to remember the exact features of the younger version.

<sup>3.</sup> Insult to Application: The Bureaucratic Invasion of our Classroom (New York: Arbor House, 1986)

What does all this mean for teaching? Simply this. The best instructional strategies are those that encourage students to make knowledge their own. Before reading about a new subject, it is important to ask questions about it. After studying a subject, one of the most effective writing assignments is simply to finish this sentence: The one most important idea I am sure I know about this subject is . . . If the student's understanding is sketchy or tangential to what the teacher considers central, then the teacher knows what his next teaching should be. But the student who is asked to sort out his most important idea, no matter how far off he is, is closer to understanding than if he had not tried his hand at making sense of the material. He owns his idea; his knowledge is personal.

Mr. Purdue made our knowledge personal by having us write what we knew; Miss Donnell did it by having us become Romans and design our own assembly program and Roman banquet. Miss work did it by letting us explore what we believed as we debated on a Town Meeting of the Air.

## Student Choice

The first characteristic of classroom activities that foster thinking them is making knowledge personal. The second characteristic is related to the first. It is genuine student

choice. Reading experts constantly remind us that students who are not interested in a subject have great difficulty comprehending it. To comprehend is to make sense of. Readers are in the business of constructing meaning through symbols. They have to bring to the black ink on the page the warm vitality of their own experience, their own questions, their own struggles for answers -- then the words will begin to make sense. My favorite metaphor of the reading text is the bullion cube. It is unpalatable and will choke our students unless they stir it in the hot water of their own experience. Then it can be digested and can nourish. Students have to choose to read, in other words. They create their own anticipator, sets. As Jim Moffett wrote, "to motivate" is not a transitive verb.

Will is the energy that drives learning. This personal force to achieve a personal goal is what makes learning efficient. My adult students who choose to write will master the seemingly meaningless and illogical commands built into a word processing system efficiently and rapidly. Children who want to build a toy plan will learn to hold a hammer and drive a nail. To work, any instructional strategy or curriculum material must allow room for individual decisions. Which animal do you want to read about and report on? On which state in the union do you want to become the expert? We have talked a lot about individualized learning in the last couple of decades, but what most educators mean by that term is not genuine choice. Instead

it tends to mean only that each child chugs through a pre-set curriculum at his own rate. If we allow genuine choice in the classroom, each child will have a somewhat different curriculum. What we will gain by this seemingly sloppy and hard-to-manage arrangement is the one thing we cannot do without -- and that is the will to learn. We will also have an authentic reason for students to share what they have learned. They will be truly informing the class rather than merely showing the teacher what they know. Good reading teachers know that students who can answer the question "Why am I reading this?" will be the ones who will best understand what the read. They will be predicting, sampling, and confirming or altering their predictions throughout the process. The best readers will go beyong and role-play the writer of the text they are reading. They might say to themselves, "if I were writing this I would. .. " The text begins to happen in their head."

To choose is central in learning. Let me give you an example of how student choice can energize learning. Charlotte Willour, one of the teachers I have worked with, used student choice as a way to prepare seventh graders to read two novels

about the American revolution, Johnny Tremain and My Brother Sam is Dead She had her students choose to be a citizen of Boston living in 1773. They each imagined themselves in that role and as such reflected on what it would be like to contemplate refusing to let the three shiploads of tea land because of the odious tax that Parliament had imposed on it. Each student established his own character in his mind and told his classmates a bit about his circumstances and his views. Then the teacher had them imagine they were sitting in their home late at night after all the rest of the family was in bed. As they looked into the candle on their table (the one they created in their mind), they were to think about the decision facing the Bostonians. Then they wrote imaginary diary accounts. Here is what one seventh grader wrote:

I am here in my house on Beacon Hill. I see the Rebellion coming ever closer. Many men will die so another may live in prosperity and dignity.

Many people criticize me, but I belive in my cause. Our representation in Parliament is all important. Though I can now say that possibility is growing evermore harder to reach.

As the light wanes this night so does England's hold on us. We have tried ever so hard, but to no avail.

And lest you think this is an unusually gifted seventh

<sup>4.</sup> Written by Esther Forbes in 1943 (New York: Dell, 1973)

<sup>5.</sup> Written by James Lincoln Collier and Christopher Collier, (Four Winds Press, 1973).

grader, listen to the next lines -- pure 12-year-old.

My family believes in this cause as strongly as me. And I think even my pets do. I am sure they too would die for our cause.

Clearly this boy was making history his own.

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I was doing some demonstration teaching in a first grade in a nearby Chicago suburb recently. The teacher wanted me to show her how to get students to choose their own writing topics. wanted to implement Lucy Calkins and Donald Graves's recommendations for teaching writing. I began by asking the class to brainstorm for a few minutes about topics they might want to write about, and I put a few on the board: Rabbits, A Walking Banana on the Moon, The Big Hulk at Sea, My Guppies. So the list went. Then, leaving that list on the board for the children who might otherwise be stuck, I asked each of them to write his own list on the inside cover of a writing folder in which they would keep their work. One child took out a piece of tablet paper instead. By the time I got back to him, he was proudly showing me his rabbit story -- already a half page long. For him the goal of coming up with a list of possible topics was aborted by his passion to write about the topic he had initially suggested. His motivation was already there, but not for the task I had in mind. As I looked over the children's shoulders at their lists of titles, I found two on the list of a little freckle-faced boy that staggered me: What Happens to a Grown-up

Who Can't Read, and What Does it Mean to Grow Up? I silently motioned to his teacher to come look, and she was as surprised as I. I asked after class if there were anything unusual about this child. Was he gifted? She insisted that he was not. He was having a little trouble learning to read. Sure enough, the next day he wrote about a Bag Man who didn't know how to read. When students have an opportunity for genuine choice, their writing becomes authentic. They are forging their cwn meanings.

# Social Learning

Let's look now at the third element I identified in my memories of good teaching: social learning. My first example comes from Teresa Lucie-Nietzke's account of what she calls a "Cooperative Approach" to teaching the Lord of the Flies. Instead of giving the class information about the book or leading a discussion of it, Ms. Lucie-Nietzke had the students become the boys stranded on the island. As she explained to the class, "You are a group of adolescents who have been stranded in an uninhabited classroom. Instead of gathering food and making a fire you must study Lord of the Flies. On the teacher's desk are materials which need to be distributed and discussed." The students' first reaction was, as you would expect, disbelief; and then they

<sup>6.</sup> Illinois English Bulletin, Winter 1987, pp. 41-43.

looked truly lost. As the teacher wrote, "It would have been a good time to spell the word 'anarchy' into Helen Keller's hands." But she had planned well, and on the desk she had put lessons that had to be completed. They were the fire to maintain and the food to find. The students were free to organize the room, discussions, and homework however they wished, and they could use the teacher as a resource whenever they chose; she could be asked to lecture. Naturally, the class's freedom was limited by the need for attendance and certain school rules. They had to set up a social order within which the list of standard novel study objectives would be met. She also had a list of objectives that included their understanding of the type of individual they are inclined to be in a society. next three weeks students did informal research, selecting a philosopher from a list the teacher had provided, reading some of his philosophy and reporting on it. In addition to taking a teacher-made exam over the material at the end of the three weeks, they wrote an essay on this topic: "Which character in the Lord of the Flies did your behavior most resemble?" Here's a representative response:

Piggy is most like me when he tried so hard to help but everyone pushed him away. He was an easy target for people to make fun of and I was a target of jokes too at one time.

Because the learning was social and the knowledge gained was personal, based on student choice, the teacher found amazingly

honest and objective writing -- again, learning that was
expressed in an authentic voice. The relaxed atmosphere of the
classroom fostered what James Britton notes is central to
language development, namely, expressive language -- language
that is exploratory and tentative, used not so much to
communicate as to forge thought. Tentative interpretations of a
text have great value as theorists in reader response criticism
have shown. To explore a text a climate of inquiry has to be
set.

A second example of the value of a social setting comes from a junior high teacher, Ray Ziemer, who has found that using the computer in writing class led to more authentic writing than he had seen before, largely because of the ease with which students could share their compositions. As he put it, "Word-processed hard copies of student writing. . . tend to circulate more than manuscripts done in cursive. Like other writing teachers, I'd usually require students to keep their works-in-progress in folders in the classroom; but now I often find that print-outs lead to a somewhat public life in between the computer room and my language arts class. The good-looking text just lends itself to sharing." Like the shared inquiry groups that sprang up during the Renaissance to respond to and interpret one another's texts, small groups of students who write for each other begin to develop a genuine purpose for writing. Electronic mail and bulletin boards, including sending computer disk to other

schools, is a way too prepare children for the rapid communication that increasingly characterizes our era.

Individuals sitting at computer terminals may well be engaging in one of the most social environments of all.

My memories of school are also flooded with social settings. Mr. Purdue had us bring in political cartoons from the newspaper and magazines and meet in small groups to see what sense we could make of them. Then we presented our consensus to the class, at which point I am sure he must have corrected our immature impressions, but that is not the part I remember. Again it is the social learning —the Roman assembly and banquet and the lively class Town Meeting that I remember — not what was in the books I read. The social setting of the classroom stimulates the questions that fuel the making—sense process.

### Stimulating Material

The final element in classroom thinking activities is stimulating material. And this is where you publishers come in. I do not remember anything that was bland or boring. I am sure there were many such materials; I don't want to romanticize this vision of my schooling. But textbooks have become significantly less stimulating in the last decade and a half, as many educators are noting. All of us in this room concerned about the "dumbing"

down" of school materials. Frank Smith's new book about educational materials is aptly titled <u>Insult to Intelligence</u>.

Bill Honig's leadership in California to get more good literature into the classroom at all levels is to be commended, no matter how one feels about the problems posed by "prescribed lists."

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In one of my early diaries I wrote about how much I wished I lived in a beautiful place like Gitchee Gumee or the Isle of Innisfree. I didn't make up those names. They entered my world through the literature read to me by my parents and teachers. Bill Martin talks about the importance of introducing children to "life lifting language." With the widespread emphasis on thinking skills that this conference represents, the baby boomers's commitment to good schooling for their children, California's efforts at textbook reform, the wide dissemination of research that supports a whole language approach to literacy instruction -- all these and more have perhaps made the climate right for what came before its time -- the curriculum-reform movement of the late 1960's and early 1970's. We educators underestimated the teacher's need for help in planning and management of a classroom where personal knowledge, student choice, social learning, and stimulating materials all have a central place. The challenge now is to publish materials that will provide help teachers plan integrated, holistic units in their classrooms.

As one of the major authors of Houghton Mifflin's Interaction program, I was part of that movement. I am as concerned as you in the publishing industry that this time we succeed. We want lively, stimulating, and, yes, controversial material in the classroom, because without it neither motivation nor thinking is likely to occur, but we also want to give teachers a better picture of what authentic learning looks like. We won't do it with lists of subskills and mastery tests. atomized learning belongs to an outdated paradigm of how learning happens. If the curriculum is to come alive "in the head" of the student as the Lone Ranger did for Roger Ebert, then we must give students textbooks that present wholes. Mindless skill-builders may keep students quiet, keep teachers from having to think about what they are doing, and keep money flowing into the publisher's coffers, but the cost is nothing less than the loss of the thinking our society so desperately needs. We have to help teachers set up the kind of classrooms in which students can make stimulating material their own. They need help from all of us in this room to learn how to make student learning personally meaningful, self-generated, social, and stimulating. We simply have to make that place called school both much harder and much more fun!